Town of Townsend
Wastewater Treatment Feasibility Study

March 23, 2022

REMINGTON & VERNICK ENGINEERS

Intent of the Feasibility Report

- **Purpose: evaluate the feasibility of Townsend designing, constructing and operating its Wastewater Treatment Plant and Disposal System**

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History and Background

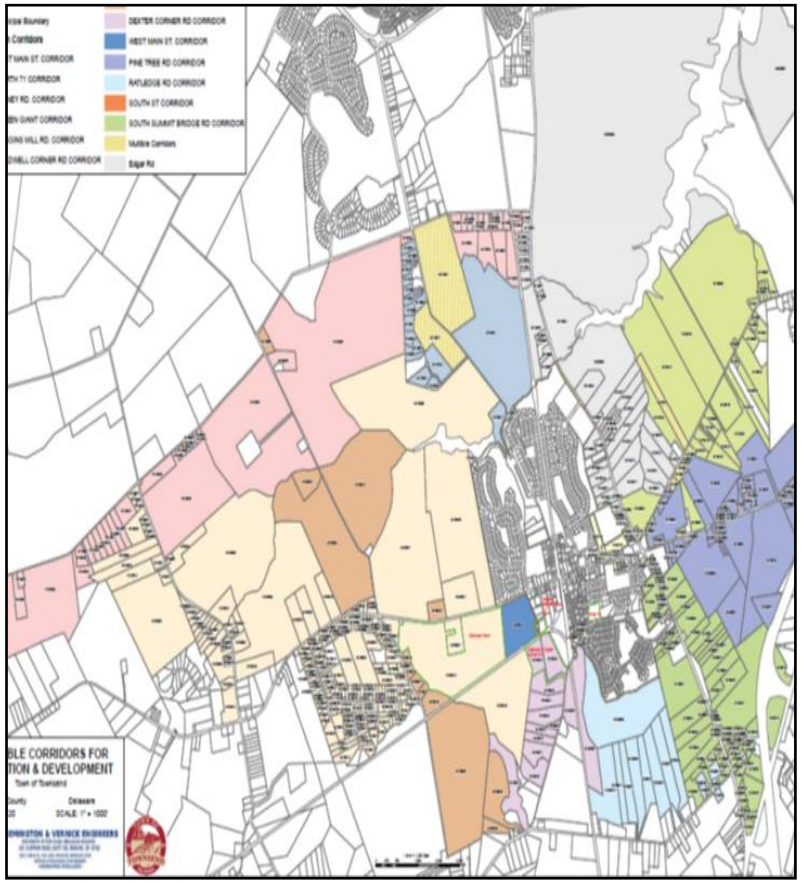
- **October 2001 - Sewer Agreement New Castle County**
  - Capacity to serve existing and 270,200 gpd
  - Allowable buildout of new development (types, sizes, and number)
- **Town appealing development destination**
- **Development residential, commercial and industrial**
- **Townsend annexed nearby areas**
- **Need options for growth (30,925 gpd remaining)**

Existing Characteristics

- **Population of ~2,700**
- **Existing flow is 0.1482 MGD (metered data)**
- **Obligated flow of .2181 MGD**
- **Town discharges via Wiggins Mill Road & Edgar Road PS**
- **County Wastewater Plant**
  - Sequencing Batch Reactor (SBR)
  - Spray Irrigation and Surface Discharge to Appoquinimink River

Projected Characteristics

- **Growth based on 2020 Municipal Comprehensive Development Plan**
- **Projections for 2030**
  - Population – 3021
  - Average Daily Flow (ADF) – 2.6 MGD
  - Peak Daily Flow – 3.91 MGD
- **65% Residential**
- **20% Commercial**
- **10% Community**
- **5% Parks and Recreation**



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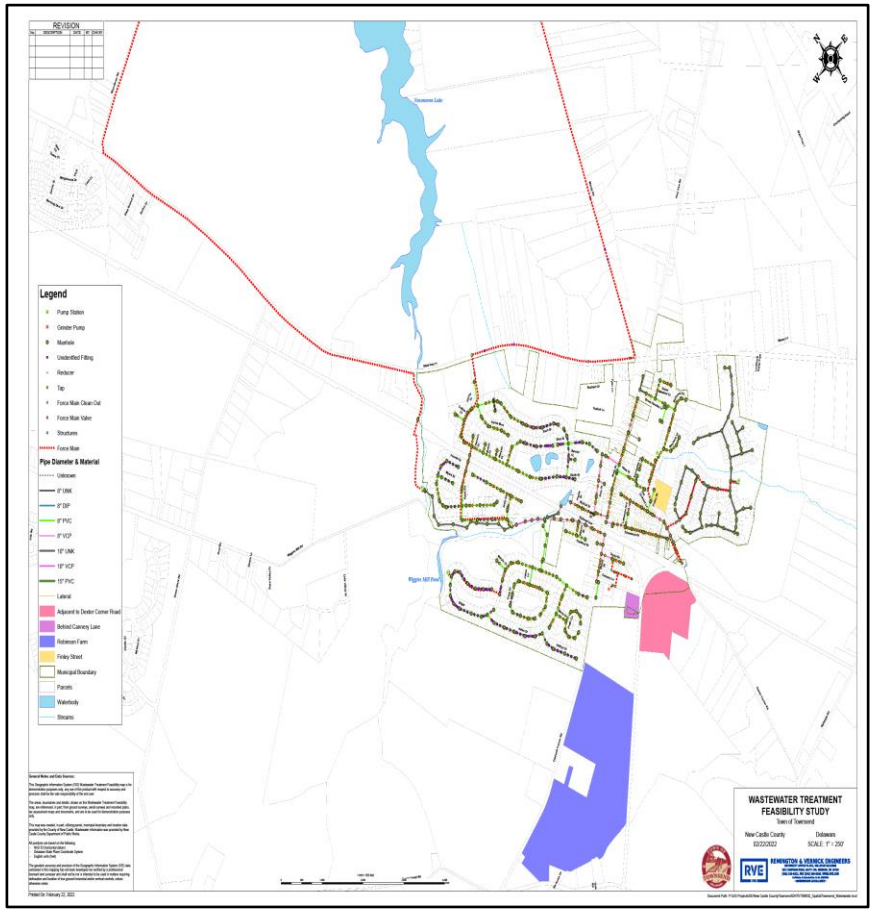
Identification of Alternatives

- **Treatment Alternatives**
  - Extended Aeration
  - Sequencing Batch Reactor
  - Oxidation Ditches
- **Spray Irrigation Alternatives**
  - Finley Street
  - Behind Cannery Lane
  - Adjacent to Dexter Corner Road
  - Robinson Farm
- **Surface Disposal Alternatives**
  - Noxontown Lake
  - Wiggins Mill Pond



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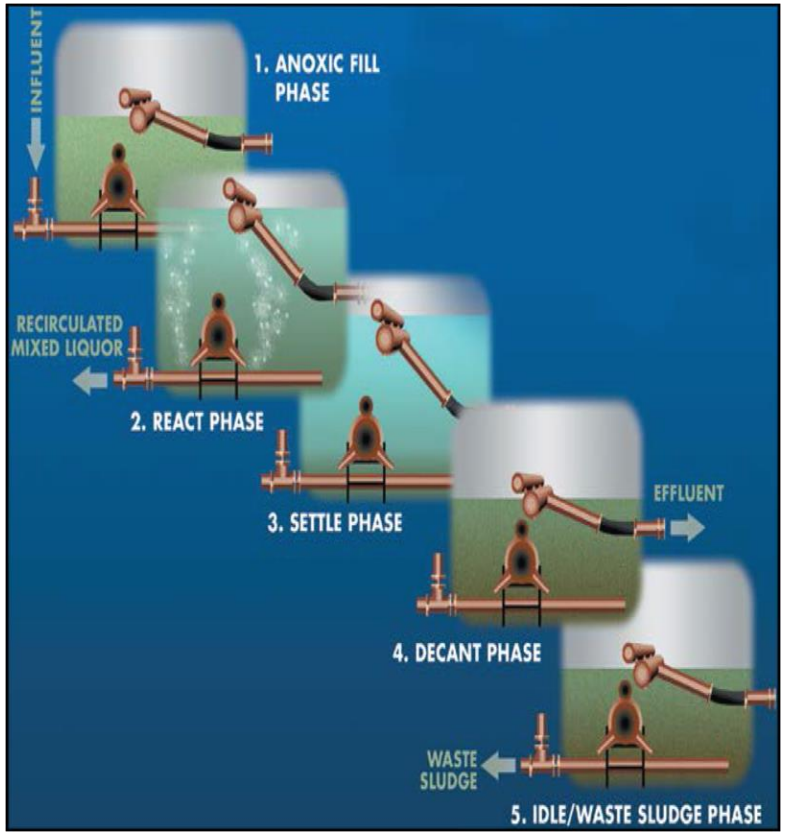
Evaluation of Alternatives

- **SBR Treatment**
  - $34 Million – Capital Costs
- **Slow Rate Land Application Disposal**
  - $7.1 Million – Capital Costs
- **Additional Costs to be expected due to Plant Staff, Maintenance and Operations**



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Recommendations

1

Determine limits of County/Town Asset Ownership

2

Identify and secure necessary funding

- DNREC Clean Water SRF
- USDA Rural Development
- Other Federal/State funding sources

3

Assess Town goals regarding future growth, independence and costs

Thank you

Questions?

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